California GARDEN

JULY-AUGUST
1992
Volume 83 No. 4
ISSN 0008-1116
$1.50

HORTICULTURAL CALENDAR

Cont.-Jul. 5 **DEL MAR FAIR** Flower & Garden Show: "Horsing Around in a European Garden"
From Interstate 5 take Via de la Valle west to Fairgrounds. Landscaped garden displays, floral arrangements, sales, & demonstrations. Sun.-Thurs. 10 a.m. -10 p.m.; Fri. & Sat. 10 a.m.-11 p.m. Fair admission $6 adults; children & seniors less. Free parking. Call 755-6940 or 296-1441.

Jul. 2 **THE HUNTINGTON** First Thursday Garden Talk
1151 Oxford Road, San Marino. "Palms for the Home Garden" slide lecture examines the many varieties ideal for low maintenance home landscaping. 2:30 p.m. Free. Call 818/405-2282.

Jul. 5 **SAN DIEGO COUNTY DAHLIA SOCIETY** Specimen Show
Casa del Prado, Majorca Room, Balboa Park. 1-4:30 p.m. Free.

Jul. 7 **QUAIL BOTANICAL GARDENS** Free Children's Tour
230 Quail Gardens Drive, Encinitas. For ages 3 to 6. Meet at Visitor's Center. 10:30 a.m. Garden admission free. $1 parking. Call 436-3036 Tues.-Fri. 10-1 p.m.

Jul. 21-Sep. 5 **THE ATHENAEUM MUSIC & ARTS LIBRARY** "New Directions in Landscape Architecture"
1008 Wall Street, La Jolla. Exhibition of work by members of San Diego Chapter of the ASLA. Series of six Friday lectures, 7:30 p.m. Series: $34 members, $44 nonmembers. Individual lectures: $8 & $10. Call 454-5872.

Jul. 25 & 26 **SAN DIEGO COUNTY ORCHID SOCIETY** 6th Annual Summer Show
Casa del Prado, Majorca Room, Balboa Park. Sat. 12-4:30 p.m.; Sun. 10-4:30 p.m. Free.

Aug. 1 & 2 **SAN DIEGO COUNTY DAHLIA SOCIETY** Show
Casa del Prado, Majorca Room, Balboa Park. Sat. 2-5 p.m.; Sun. 10-4:30 p.m. Free.

Aug. 4 **QUAIL BOTANICAL GARDENS** Free Children's Tour
230 Quail Gardens Drive, Encinitas. See July 7 description for details.

Aug. 6 **THE HUNTINGTON** First Thursday Garden Talk
1151 Oxford Road, San Marino. "Landscaping with Cacti & Succulents" slide lecture on achieving a natural look with rockeries, succulents & other plants. 2:30 p.m. Free. Call 818/405-2282.

Aug. 8 & 9 **MIRACOSTA HORTICULTURE CLUB** 2nd Annual "Yardening" Garden Show
Student Center Building, One Barnard Way, Oceanside. Take Highway 78 to College to Barnard to Parking Lot H. Educational exhibits, gardening video, consultants' stand, plant sale. Sat. 1-4 p.m.; Sun. 10-4 p.m. Free. Call 941-4106 or 724-3749.

Aug. 15 & 16 **SAN DIEGO FERN SOCIETY** 14th Annual Show
Casa del Prado, Majorca Room, Balboa Park. Sat. 1-5 p.m.; Sun. 10-5 p.m. Free.

Aug. 19-24 **AMERICAN BEGONIA SOCIETY** 1992 Convention: "Captivating Canes"
The Inn at the Park, Anaheim. Call 714/525-7061.

Aug. 21-Sep. 7 **CALIFORNIA STATE FAIR** 139th Floriculture Exhibit & Competition
1600 Exposition Boulevard, Sacramento. Floral exhibits to be representative of the State's diverse landscapes. Daily 10 a.m.-10 p.m. Admission charge & parking fee. Call 916/924-2282.

Aug. 22 & 23 **SAN DIEGO BROMELIAD SOCIETY** 18th Annual Show
Casa del Prado, Majorca Room, Balboa Park. Sat. 1-4:30 p.m.; Sun. 11-4:30 p.m. Free.

Aug.22-Sep. 7 **JULIAN WEED SHOW**
Town Hall, Main & Washington, Julian. Daily 9-5 p.m. Free. Call 765-1857 Fri.-Tues. 11-4 p.m.

Sep. 10-13 **AMERICAN IVY SOCIETY** 1992 Convention: "Ivies for Every Garden"
Columbus, Lebanon & Zanesville, Ohio. Includes visit to ivy display garden at Ameriflora '92 in Columbus. Write American Ivy Society, P. O. Box 520, West Carrollton, Ohio 45449-0520.

Sep. 11-13 **SANTA BARBARA BOTANIC GARDEN** Three-day Camping Trip to Santa Catalina Island
1212 Mission Canyon Road, Santa Barbara. Exploration of the island's unique native plant life & the effects of isolation & grazing on such species. Call 805/682-4726.

Sep. 19 **♣SAN DIEGO FLORAL ASSOCIATION♣** Bus Trip to Lake Arrowhead
Tour leisure homes of the rich and famous, lake cruise. (See page 126.) Call 232-5762.

(Continued on page 118)

San Diego Floral Association
INCORPORATED MARCH 1910

Published by
San Diego Floral Association
for 82 Years

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Send all editorial material and change of address to:

California Garden
San Diego Floral Association
Casa del Prado, Room 105, Balboa Park
San Diego, CA 92101-1619

California SINCE 1909
GARDEN
LIBRARY OF CONGRESS NO. ISSN 0008-1116

San Diego Floral Association
Casa del Prado, Balboa Park
San Diego, CA 92101-1619
Monday through Friday
10 a.m. to 12 and 1 to 3 p.m.
619/232-5762

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"Summer Heat in the Kitchen", an assortment of chile peppers, is by freelance artist, Marji Huntington (483-5123).

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753-7177, 442 North Rancho Santa Fe, Encinitas, CA 92024
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FLOWER SHOWS: Show chairman contact *California Garden*, 232-5762 if you want the magazine sold at your next show.

CALIFORNIA GARDEN (ISSN 0008-1116) is published Bi-Monthly for donations of $7.00 per year or $13.00 for two years, foreign delivery add $6.00 per year, by San Diego Floral Association, Casa del Prado, Balboa Park, San Diego CA 92101-1619. Second Class Postage paid at San Diego, CA and additional mailing offices. POSTMASTER: Send address changes to CALIFORNIA GARDEN, Casa del Prado, Balboa Park, San Diego CA 92101-1619.

SOME COMMON CAPSICUMS

Lucy Warren

IT WOULD BE hard to live in Southern California and totally escape the ubiquitous chile pepper. With our ethnic diversity, these spicy fruits appear in not only Mexican, but also Asian cuisines. A recent trip to the local market yielded just a few of the many available chile peppers. Following are a few suggestions regarding how they may be used. You might try planting the seeds of those you like best, but don't be surprised if the colorful bell pepper hybrids revert to the common green one.

Habanerno — (*Capsicum pubescens, C. chinense* var. *habanero*) Okay, I cheated. I didn't find this at the market, but it is the hottest pepper in North America. I thought you would want to know about it either to seek it out or to avoid it, depending on your taste. It's history is sketchy, but it may have come from Cuba and it is common in the Caribbean as a seasoning, thinly sliced when green, and mixed with lime juice and salt. Golden when fully ripe. It has a long germination and requires a warm, moist environment for this compact plant. Cultivars: INIA, Uxmal.

Serrano — This small green chile is widely used in Mexico and the southwestern United States with variations by region. Most are used fresh or made into an uncooked sauce (such as salsa or guacamole). They may be frozen, but blanch them first or else they will lose their flavor. Nearly a dozen cultivars exist, all are hot.

Jalapeño — Probably the best known of the hot chile peppers, the original was named for the town of Jalapa in the state of Veracruz. In Mexico, when it is fully ripened and smoked it becomes *chipotle*, and then when pickled becomes *morita*. In the U.S. it is always known as the Jalapeño. It is used fresh in sauces for meat and vegetable dishes, and salads. It may be used as a condiment or an ingredient, processed or fresh.

Yellow chile — That's all it said down at the Farmer's Market, but I think it is the Cascabella, a small yellow pepper, quite pungent. The name means pretty skinned pepper. This one is usually eaten fresh. Another small yellow pepper in Mexico (cascabel) is dried. The skin becomes translucent and the seeds loose, so they rattle like sleigh bells.

Anaheim — Also known as the Long Green/Red chile, by legend one of the first peppers brought to the U.S. to the New Mexico area where it is often seen dried in strings called *ristas*. They are used in the preparation of chile powder and paprika. May be mild to hot, depending on the cultivar and growing conditions. Used in canning. Cultivar characteristics make it easier to peel. Referred to as *chile verde*, when immature, when mature as *chile colorado*.

Bell — Known as *chile dulce* or "sweet pepper" in Mexico. This is the most common fresh pepper throughout the U.S. with over 80 cultivars. The Calwonder cultivar is said to represent 60% of the peppers sold in this country. Sweet and thick-fleshed, it is most often used fresh as a vegetable. Markets are demanding a premium price for brilliant red and yellow cultivars of this mild version chile.

THE FIERY CHILE

Michael Martin

THE GENUS *Capsicum* (*Solanaceae*) is comprised of some 30 species native to the New World. Most of the cultivated varieties belong to the species *C. annuum*, to a lesser extent *C. chinense*, *C. frutescens* and *C. pubescens*.

Capsicum fruits are commonly referred to as peppers, chiles or chile peppers. The term "pepper" arises from Columbus' mistaken belief that upon arriving in the Americas he had reached Asia and the source of black pepper or *Piper nigrum* (*Piperaceae*), an unrelated species.

The word "chile" is the term the Aztecs used for capsicum fruits; this term was later adopted by the Spaniards.

The source of chiles' "hotness" is a chemical called *capsaicin*, a compound very similar in structure to *vanillin*, the fragrant element in vanilla. (It is interesting to note that the Aztec emperor Moctezuma's favorite drink was chocolate, flavored with vanilla and chile peppers.) *Capsaicin* is an extremely powerful compound, and can be detected by human taste buds in as little as one part per million. The *capsaicin* concentrates in the placenta of the fruit. Removing the membrane, seeds, and ribs will assure a milder pepper flavor.

The cultivation of peppers, as one would expect from their tropical origins in Central and South America, requires warmth and moisture. Germination is best at 80-90°F ; some pepper cultivars, particularly the more primitive semi-domesticated ones like 'Tepin' and 'Pequin' additionally require strong light (75-125 foot candles for eight hours a day) and treatment with potassium nitrate (⅜ teaspoon per quart of water) to break the stubborn dormancy. This information was determined through experiments of the Redwood City Seed Co. whose proprieter, Craig Dremann, sells many unusual chile cultivars.

Once peppers are up, wait until the soil has warmed and night temperatures are above 65°F before planting outdoors. Otherwise, they will just sit, not making any growth and being vulnerable to insect damage. Once things warm up the plants grow rapidly. Different chiles grown together will cross pollinate freely.

Fertilization should consist of low nitrogen, high potassium and phosphorus fertilizers. Excess nitrogen will cause big lush plants, but a greatly reduced fruit set. Any well-worked garden soil which has been enriched with organic matter is usually sufficient for growing these rewarding garden plants.

* * *

SOME SEED SOURCES:
Redwood Seed Co., P.O. Box 361, Redwood City, CA 94064
J.L.Hudson,Seedsman, P.O.Box 1058, Redwood City, CA 94064
Horticultural Enterprises, P.O. Box 340082, Dallas, TX 75234
deGiorgi Co., Inc., P.O. Box 413, Council Bluffs, IA 51502

ADDITIONAL READING:
Peppers: the Domesticated Capsicums by Jean Andrews, University of Texas Press Austin 1990. (See Book Reviews on page 121)
The Classification of Solanaceae by W.G. D'Arcy, an article in *The Biology and Taxonomy of the Solanaceae*, edited by J.G. Hawkes, R.N. Lester, and A.D. Skelding. New York, Academic Press 1979.
Chili Peppers in California by Craig Dremann, Redwood City Seed Co. 1983.
Growing Peppers in California, UC Extension Leaflet #2676
Chile Pepper magazine, Albequerque, NM

MICHAEL MARTIN is the Collections Propagator at Quail Botanical Gardens.

GREEN CHILE ICE CREAM

IN THE HEAT of the summer we thought you might like a cool chile recipe forwarded to us from Arizona by David Eppele, compliments of the Ortega Chile Factory:

"Race your body to the nearest Baskin-Robbins store and beg, borrow or buy three gallons of their French vanilla ice cream. Stop at the store and get eight ripe avocados, a bottle of lime juice, some sugar and a half pound of roasted mixed nuts or almonds. Don't forget to buy two medium-sized cans of Ortega chopped green chile. Whisper thanks and leave.

"Run home with all this stuff. Lock the doors behind you...this is top secret from here on! Close your eyes! Just listen while I tell you what to do with your groceries.

"Allow your caterer's French vanilla ice cream to soften. Now dig out your blender. Combine a cup of sugar with a shot glass (one ounce) of lime juice and the peeled, seeded avocados. Puree this mixture and then add the nuts. Now stir in the two cans of chopped green chile. Ortega said if it wasn't Ortega's chile this recipe won't work. *¿Quien sabe?*

"Blend your avocado mixture into your ice cream, adding sufficient green food coloring to provide a light green tint. Pretty, huh?

"Re-freeze this and serve to your guests."

* * *

DAVID L. EPPELE is a Bisbee based botanist, writer and confirmed card-carrying chilehead who heads up Arizona Cactus and Succulent Research, Inc.

FIREWEED!

Jeanine De Hart

SUMMER IS HERE! On the native plant scene in the spring we have the cool blues of the *Ceanothus*, in the heat of the summer we have the blazing reds and other **hot** colors. As other plants shrivel and wilt in our intense summer sunshine, the fireweed (*Epilobium augustifolium*) with its beautiful blooms is as comfortable as I am. Sometimes the fireweed is pink, ours is more orange-red and in some areas of local mountains it is a true magenta. Although it loves heat, in California, it is found in the higher elevations and in fairly moist habitats.

The fireweed was so named because of its propensity for colonizing an area after a fire. It is actually responding to the increased light and will just as quickly colonize an area that has been cleared or disturbed in any other way. After London was bombed during World War II, fireweed appeared where it hadn't been seen for many generations.

Fireweed is a rare occurrence in San Diego County, found in the Cuyamacas and Lagunas. Since we don't allow fires to happen, there is seldom enough light coming through the canopy to support this plant.

Interestingly, fireweed is native to both North America and Europe. It flowers from late summer through fall when nothing too much is going on in your garden. As you might suspect by looking at the long-throated bloom, it is pollinated by hummingbirds.

Fireweed will grow in full sun, needing more water in order to do well. The more water it is given the more invasive it becomes, so consider this if you have a spot in full sunshine that needs some summer color.

Like many native plants, fireweed has a practical nature, as well. The early Californians used it as a remedy for cuts and bruises. It has been used as a wash. There have been additional medicinal uses by Indians and others, unsupported by scientific evidence.

Uses of fireweed as a food source have been well documented. The dried leaves may be brewed into a tea. The young flower stalks and leaves may be used in salads and the older stems cooked in the same way as asparagus.

* * *

SOURCES AND FURTHER INFORMATION:
A Flora of San Diego County, California, R. Mitchel Beauchamp
Audubon Society Field Guide to N. America Wildflowers, Western Region
How to Know the Wildflowers, Mrs. William Starr Dana
Magic and Medicine of Plants, Readers Digest
Complete Garden Guide to Native Perennials of California, Glenn Keator
Sierra Wildflowers, Theodore Niehaus
Wildflowers of California, Mary Elizabeth Parsons

JEANINE DE HART managed the former Weber's Nursery specializing in native plants and now does consulting and contract growing of native species.

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GARDEN GIFTS FROM SPAIN'S EXPOS

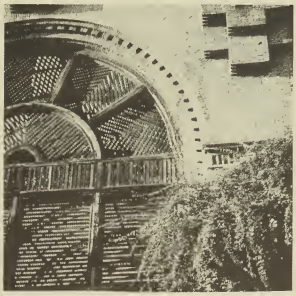
Carol Greentree

Royal Pavilion for Expo '92

THE SINGULAR BEAUTY that greets us each time we visit Balboa Park is now such a familiar certainty that it is hard to imagine a time when the "Magic City" and its gardens were not here for San Diegans to enjoy. Balboa Park's two expositions had strong historical links to the several international expositions of Spain, but some of those links have been veiled by the shadowy passage of time. Much has been written about the development of the park's fabled Spanish Colonial architecture for the 1915 fair, and facts are known about the Spanish gardens of the 1935 expo. Yet in this past year of the Columbian quincentennial in Seville it seems fitting for *California Garden* to footnote some of the less-known ways that Spain's world fairs have influenced our own much loved park.

EXPOS PAST

The long chain of expo-continuities between Spain and San Diego began as early as 1888, when Barcelona held its *Exposicio Universal* in Citadel Park. Twenty years in the planning, Barcelona's park housed several museums, a small zoo, a majestic fountain, a little lake, some large sculpture, a greenhouse and an oversize lath house for shade-loving plants. The handsome lath house was designed in the Catalonian *Modernismo* (Art Nouveau) style. Framed with lofty iron arches, sided with brick, and roofed with narrow slats, this structure was named the *Umbracle*, and it still attracts plant-loving visitors to this day.



Umbracle in Barcelona

The size, the architecture and the internal atmosphere of the *Umbracle* are so similar to Balboa Park's Botanical Building that it is easy to speculate that the *Umbracle* could have been a primary model from which our own lath house was built...just 27 years after Barcelona's expo. A photographic comparison of the two elegant lath houses suggests that it is not mere accident that they share common features and ambiance. In terms of classic exposition amenities, they are surely very close cousins.

Because of similar climate, harbor and mountain backdrop, San Diego has much in common with Barcelona. It seems entirely fitting that both cities should include a splendid public lath house among their cultural assets.

Spain's first international exposition was such a success that Barcelona soon planned another fair, to be held in 1913. But — just as San Diego found itself in competition with San Francisco for the 1915 Panama Expo — Barcelona found itself in competition with the Andalusian city of Seville. Both cities were developing beautiful new parks for their respective fairs when World War I preempted the world's attention. Both fairs were postponed indefinitely. After the war, however, each city expanded its original expo plans and the fairs were held conjointly in 1929...much as California's fairs were held simultaneously in 1915.

From these two fairs San Diego borrowed liberally for its own 1935 exposition. Richard Requa, chief architect for the California Pacific International Exposition visited Spain at least twice, and one of his trips was for the express purpose of measuring and photographing the gardens and buildings he planned to incorporate into San Diego's second expo. Among these were the garden of the Casa del Rey Moro in Ronda (duplicated as the Cafe del Rey Moro), sections of the Alcazar gardens of Seville (simulated in the Alcazar Gardens), and the Spanish Village feature of Barcelona's second fair (greatly modified to become the cluster of artists' studios still called the Spanish Village). Requa also borrowed Aztec and Mayan motifs from Seville's expo, which was

Botanical Building in Balboa Park

Comparison Expo Fact Sheet

Compiled by Carol Greentree

	Expo '92 — Seville, Spain	Panama California Exposition — San Diego
When:	April 20-October 12, 1992	January 1, 1915-December 31, 1916 (Two separate expos, each lasting one year)
Where:	Cartuja Island, an undeveloped riverside district.	Balboa Park, an undeveloped city park.
Size:	530 acres (215 hectares)	167 acres (heart of park); 614 acres total
Visitors:	18 million expected	5,000,000 expected; 2,000,000 first year; 3,747,916 total.
Theme building:	Cartuja Monastery, has historic associations with the life and death of Columbus.	California Building/Tower, invented especially for the 1915 fair.
Type:	Universal; international with 110 participating nations — including Islamic countries for the first time, ever.	Regional; limited to western states and California counties.
Plants:	450 species; 350,000 trees, 300,000 sq. meters (360,000 sq. yds.) landscaped gardens, 3 km (2 mi.) arbors, 35 km (21 mi.) hedges and borders.	400 species; ≈ 2,000,000 plants, total. (Trees, shrubs, vines, seasonal color.)
Fountains and water features:	120, including many novel types.	Under a dozen, outdoors.
Special Features:	**Lake of Spain** (37 acres) with informally landscaped lakeside promenade. **Nature Pavilion**, including a beautiful enclosed wood-&-glass greenhouse with trim, modern lines and attractive, translucent shade control panels modeled on canvas courtyard covers typical of Andalusia. **Avenues**, cross-streets and gate-way plazas; inventively landscaped. **Palenque**, an open-sided tented entertainment area, gardenscaped with potted trees and perimeter fountains.	Small **Laguna des Flores**, a reflecting pool for water plants, with surrounding area landscaped as a formal promenade. **Botanical Building**, a lovely open-air shade-house for nearly-tropical plants. **Avenues**, cross-streets and open plazas; conventionally landscaped. **Organ Pavilion**, an open-air entertainment area and gathering place

designed to promote relations between Latin American countries and Spain. Hints of Seville's 1929 Guatemalan pavilion appear in the Federal Building, and Aztec-derived reliefs were rendered as Art Deco patterns on the Standard Oil tower, further reinforcing the chain of Spain's 1929 influences on Balboa Park.

EXPOS PRESENT

Travelers who visit Spain this year to attend Seville's Expo '92 or Barcelona's summer Olympics can still see the originals from which Requa borrowed so admiringly, because Spain's 1929 expo sites have become beautiful public gardens which are in active use today. Expo '92 guests will also be able to visit Seville's new **Garden of the Americas**, which displays favorite old plants from the New World and some brand new introductions, yet unfamiliar to Europeans, from the Western Hemisphere. Adjacent to the Garden of the Americas visitors will find the **Guadalquivir Gardens**, named after the deep river that brought Columbus and his treasures to home port after his explorations. The Guadalquivir Gardens present an intriguing new design approach: they are planned as an educational landscape, arranged to tell the history of Arab-Hispano gardening. A stroll through this area will recapitulate centuries of garden evolution — demonstrated in the crisp lines of contemporary design.

Overall, however, Seville's Expo '92 landscape looks more to the future than it draws from the past. The 530-acre fair site on Cartuja Island has a style very

different from the traditional Moorish themes we usually associate with southern Spain. Expo '92 seems as futuristic as a Buck Rogers tomorrowscape. The major avenues look ultra modern, with sci-fi "cool towers" and parabolic shade structures and a cone-tented entertainment pavilion called the **Palenque**. A colossal geodesic globe mists one entry gate with a cooling cloud of fog, and sheer waterfalls spill sheets of welcome wetness over wide expanses of glass, to help reduce the summer temperatures near walkways.

Expo '92 owes its visionary landscapes to the very practical goal of its planners: to keep visitors as comfortable as possible in the summertime heat of Seville, similar to that of Merced or Chico. To do this, expo planners have developed what they call "soft" technologies for climate modification. These are practical systems that will create the optimum human comfort with the minimum use of non-renewable energies and at the lowest possible cost.

Soft technologies were designed for Expo '92 by a team of environmental analysts at the University of Seville. Assisted by computerized models, Spain's climate engineers have devised and tested a number of systems to keep fairgoers comfortably cool outdoors in the heat of Andalusia's scorching summer weather, which rivals California's central valley. In inland Andalusia, as in inland California, temperatures usually mount from the upper 70°sF in April to the upper 90°sF during July and August...but can sometimes soar to a searing 115°F for days on end.

The expo's climate-modification team tested its most promising ideas in 1989 and 1990 in an experimental structure called the Bioclimatic Rotunda — an open-sided conical tent equipped with air vents and evaporative coolers and mist-making "micronizers." By manipulating these and other elements, the engineers were able to design shaded outdoor areas which vent off rising warm air while dropping cooler air to the ground level, setting up natural breezes. Fog-making nozzles exactly like those now used at the entrance of the Tiger River Trail at the San Diego Zoo are placed in trees and arbors at Expo '92, to drop surrounding temperatures by an amazing 20-30°F. "Wet barriers" such as curtains of vertically-jetted water will also help cool air as the natural drafts move through tiers of fountains.

By quantifying their early test data, Expo '92's environmental engineers have been able to work closely with the architects and landscape planners to combine the most successful climate modification ideas in the most efficient ways. The analysis team found what gardeners have long known: that foliage is one of the best possible shade materials. The simple reason is that leaves do not retain the radiation they absorb; evapotranspiration prevents overheating of the material itself.

Aquasphere - Expo '92 Seville

Since shade is so important in any natural cooling scheme, the expo planners created "instant" arbors — pergolas topped with wire mesh and overhead containers of fast-growing, irrigated plants — to provide a continuous cover of foliage above walkways and rest areas. In the hottest weather hidden nozzles can fill these green passages with water particles so fine that visitors will get pleasantly cool — but not wet — as they walk from pavilion to pavilion.

As a tribute to the landscape successes of Seville's fair, Alfred Heller, editor of the quarterly *World's Fair*, observed last summer from the expo viewing tower that to get a bird's eye view of the grounds was "to be astonished by what is happening to Cartuja Island. Even in the 100-degree temperatures, the overall impression is green: a helluva lot of horticultural skill [has] transformed the yellow dust as much as have the 215 hectares of competitive architecture."

Many of the pre-tested cooling strategies developed for Seville will find ready landscape applications in the warmer areas of California and other southwestern states. The soft technologies of Expo '92 are based on sound environmental principles. They are an up-to-date blend of the timeless wisdom gleaned from ancient desert-dwelling peoples of the Middle East, combined with the very latest inventions from aerospace, agriculture and computer science.

EXPOS FUTURE

After Expo '92 ends in October, the fair site will be revamped to become Cartuja '93, named after the district in which the fair is being held. Post-expo modifications will transform the area in to a landscaped campus for private research centers, technology development laboratories and a university. The expo gardens and permanent buildings will remain intact for future use, much as Balboa Park's 167-acre expo area continues to serve our own community today.

For those of us who may not be able to experience Expo '92 in person, awareness of the Columbian quincentennial is an opportunity to renew our appreciation of San Diego's links with Spanish expos. Just two years after Balboa Park's recent 75th anniversary of its Panama California Exposition, Seville's fair will afford us a fresh look at — and a new reason to cherish — the garden gifts we have already inherited from Spain. And as the environmental imperatives of our warm dry region unfold, it will be most instructive for local gardeners and landscape planners to observe the ways in which Expo '92 can contribute to more comfortable outdoor living in the San Diego area...especially in the heat of summer. Indeed, if expo history repeats itself again on this side of the Atlantic, we will surely benefit from the gift of Spain's newly computerized studies — to help us make the most of the many climates of our entire county.

* * *

CAROL GREENTREE is a freelance garden writer with an interest in Spanish gardens and in landscape history.

PLANTING TO MAXIMIZE FIRE PROTECTION

IN NATURAL CHAPARRAL country such as San Diego, fire is nature's toothbrush, periodically cleansing and flossing old plant materials from plains, mesas and canyons. Many native plants are actually designed to burn efficiently in this dry climate, where plant matter is subject to only minimal decay. No matter that man has dentured the ridges with structures of his own making. Natural burns occur typically within eight to forty years.

It is man's interest and intervention which alters this pattern. With above average spring rains this year, San Diegans must be particularly conscious of grasses and brush materials which will dry out in summer Santa Ana conditions. Native California material burns clean with intensity when left to accumulate.

In Normal Heights in 1985, residents learned the dangers of accumulated brush not tended or burned away in over 50 years. Dick Miller of the California Park Service lost his family home in that fire and cannot stress too strongly the importance of brush removal in accordance with the current fire code. It specifies cutting back brush to 18" within 100' of your home — that's horizontal feet, so if you live on a canyon it may mean many more linear feet. Within 30' of the house, brush should be no more than 2" in height. Don't eliminate the plants completely, groundcovers protect against soil erosion.

Some plants naturally have high water content in the stems and leaves. These are **more** resistant to fire damage and **less** likely to carry the flames. **No** plant material will totally prevent the spread of fire alone. The plants listed below are less likely to provide kindling for the fire **if** they are adequately watered and maintained. This means trimming out dead materials.

The keys to maximizing the effect of fire retardant landscaping are:

A. Selecting plants with high moisture content which produce a minimum volume of fuel.

B. Irrigating plants periodically to assure high moisture content. Apply water no faster than it can be absorbed into the soil. Where appropriate, drip irrigation is an ideal solution to minimizing water use while maximizing moisture content.

C. Maintaining the landscape, taking out spent plant material and encouraging healthy growth. Minimize the accumulation of fire fuel including litter and dead material.

Plants in the following table were selected on several criteria. All grow relatively low to the ground and have good root systems which hold the soil in place. They also grow well in Southern California.

LOW GROWING PLANTS RECOMMENDED FOR FIRE RETARDING LANDSCAPES

Compiled by Vincent Lazaneo

Arctotheca calendula	Cape Weed (2,4)
Baccharis pilularis prostratus	Dwarf Coyote Bush (1,2,4)
Ceanothus griseus horizontalis	Carmel Creeper (1,4)
Cistus crispus	Descanso Rockrose (5)
Cistus salviifolius	Sageleaf Rockrose (1,4)
Crassula multicava	Crassula (4)
Gazania rigens leucolaena	Trailing Gazania (2,3,4)
Hedera Canariensis	Algerian Ivy (1,4)
Helianthemum nummularium	Sunrose (4)
Myoporum parvifolium	Myoporum (2,4)
Osteospermum fruticosum	Trailing African Daisy (1,2,4)
Rosmarinus officianlis prostratus	Dwarf Rosemary (1,3,4)
Salvia sonomensis	Creeping Sage (5)
Sedum var. species	Sedum (4)
Ice plant var. genera: *Carpobrotus, Delosperma, Drosanthemum, Lampranthus, Malephora*	Ice plant (1,2,3,4)
Vinca major, V. minor	Periwinkle (5)

SOURCES:

1. "Landscape for Fire Protection" Leaflet 2410, UC Cooperative Extension, 1979. ($1.00)
2. *Trees and Shrubs for Dry California Landscapes*. Bob Perry, Land Design Publishing, San Dimas, CA, 1981
3. *Sunset Western Garden Book*. Lane Publishing, Menlo Park, CA, 1988. ($18.95)
4. "Green Belts for Brush Fire Protection and Soil Erosion Control in Hillside Residential Areas" County of Los Angeles, Department of Arboreta and Botanic Gardens, Arcadia, CA, 1973 ($1.75)
5. "Wildfire" by Steven C. Carlin, *San Diego Home Garden Magazine*, July, 1987

* * *

VINCENT LAZANEO is horticulture advisor for UC Cooperative Extension.

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TREES OF BALBOA PARK IN BLOOM

Kathy Puplava

ONE WAY TO become familiar with the wide variety of trees which will grow in San Diego is to see mature examples in Balboa Park. Nothing is more frustrating than to buy a tree in a five or fifteen gallon pot only to realize in a couple of years that it has outgrown its place, or it drops all of its leaves for the winter. Many trees have lovely blossoms which add to their attractiveness. There will be many trees blooming in the park in July and August, this list has been compiled from an ongoing survey being conducted by the horticulture department of Balboa Park. Some are numerous, others include only a single tree. Most are identified in *Sunset Western Garden Book*. If you would like to learn more about them, consider taking the free Offshoot Tour Tree Walk held on the third Saturday of each month. You will learn about more plants in Balboa Park by taking other Offshoot Tours (see Horticultural Calendar on page 118).

BOTANICAL NAME	COMMON NAME
Agonis juniperina	Juniper Myrtle
*Alectryon excelsus**	Alectryon
*Arbutus Unedo**	Strawberry Tree
Brachychiton acerifolius	Australian Flame Tree
Callistemon citrinus	Lemon Bottlebrush
Callistemon viminalis	Weeping Bottlebrush
x Chitalpa tashkentensis 'Pink Dawn'	Chitalpa
Cassia leptophylla	Gold Medallion Tree
Castanospermum australe	Moreton Bay Chestnut
Erythrina crista-galli	Cockspur Coral Tree
Erythrina Humeana	Natal Coral Tree
Eucalyptus ficifolia	Red-Flowering Gum
Kigelia pinnata	Sausage Tree
Lagunaria Patersonii	Cow Itch Tree, Primrose Tree
Magnolia grandiflora	Southern Magnolia
Markhamia Hildebrandtii	Markhamia
Melaleuca armillaris	Drooping Melaleuca
Melaleuca nesophylla	Pink Melaleuca, Western Tea Myrtle
Melaleuca quinquenervia	Paperbark Tree, Cajeput Tree
Melaleuca styphelioides	No Common Name (NCN)
Nerium Oleander	Common Oleander
Parkinsonia aculeata	Jerusalem Thorn, Mexican Palo Verde
Spathodea campanulata	African Tulip Tree
Tecoma stans	Yellow Bells
Thevetia peruviana	Yellow Oleander
Tipuana Tipu	Tipu Tree, Rosewood

* Trees which display attractive or interesting fruit.

* * *

KATHY PUPLAVA heads the horticulture department in Balboa Park.

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MEXICAN BIRD OF PARADISE: PROS, CONS AND A FREEBIE!

David L. Eppele

YELLOW, OR MEXICAN Bird of Paradise (*Caesalpinia Gilliesii* or *mexicana*) is an exotic deciduous plant which bears numerous clusters of yellow flowers with long red stamens that remind one of red plumage on a tropical bird.

This plant is a native of South America (Argentina). The Spaniards are responsible for bringing the plant to Mexico and the southwestern United States, where it has become naturalized. It grows in a wide variety of soils, will take full sun and accepts any amount of water it can get. The plant is hardy to about 10°F. Judith Phillips, author of *Southwestern Landscaping with Native Plants** lives in central New Mexico and reports that one-month-old seedlings will freeze at 22°F while ten-month-old seedlings can tolerate 8°F.

Arizona Cactus' botanical garden here in Bisbee, Arizona has displayed this plant for over seven years. Each successive year, we record more favorable comments about Mexican Bird of Paradise than any other plant in the garden. "What plant is that?" "Where can I get one for my yard?" "Are they hard to grow?" These are the sort of questions our tour guides answer daily.

Mexican Bird of Paradise is a very easy plant to grow from seed. Sow the seed when soil warms in the spring, either in containers or where you want them to grow in your landscape. It takes about two weeks for the seed to germinate, sometimes three. Since the plant is nitrogen-fixing, it requires no additional fertilizer. Now, don't go crazy and plant 300 seeds! The only drawback to the plant is the fact that it's messy! You see, the seed pods burst open with a resounding "pop" and throw seeds up to ten feet away from the parent plant. Then those pods drop off, leaving your resident gardener with a big clean-up job. And remember, each of those seeds, if left on its own, can and will sprout! They usually sprout in the cracks of the sidewalk, or I remember seeing a Mexican Bird of Paradise growing right out of an adobe wall of a house in Las Cruces, New Mexico!

To have a real show of flowers, plants need supplemental water (maybe a gallon) twice a week during the bloom season, which can be from April to October. Mexican Bird of Paradise will grow easily up to six feet tall. It likes a February pruning.

I think I have passed out more free seed of this plant than any other. The unusual flower seems to be the big attraction to this plant, although I get a lot of comments on the shape of the plant (we have one that I have trimmed into a tall, umbrella-like bush).

Mexican Bird of Paradise (*Caesalpinia mexicana*) Photo by Betty Newton

If you need a good "filler" for your desert landscape, use Mexican Bird of Paradise. Now, I'm probably crazy for saying this, but if you want a few seeds to get this plant started, write to me: David Eppele, 8 Mulberry Lane, Bisbee, AZ 85603. I'll send you some if you'll send a self-addressed postpaid envelope. Now I ask you, when is the last time you had a columnist offer to give you something (other than hot air) for free?

* * *

**Southwestern Landscaping with Native Plants*, Judith Phillips, Museum of New Mexico Press, P.O. Box 2087, Santa Fe, NM 87501

DAVID L. EPPELE is the Director of Arizona Cactus and Succulent Research, Inc. in Bisbee, Arizona. He specializes in plants which can live naturally in high desert climates.

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COMMON POISON PLANTS — BEWARE

Robert D. Horwitz

THERE ARE A surprising number of poisonous or toxic plants that are growing or can be grown in our Southern California climate. These plants are grown, obviously, for their decorative value, but they can be dangerous to a household especially if there are small inquisitive children living there who might, because of the attractiveness of the plant, try to taste or eat parts of it.

Agave — (*Agave ssp.*) This succulent plant grows profusely in the San Diego area. Its various varieties are depicted by plants with large fleshy, long, pointed leaves. They produce flowers, usually branching out on a long stalk from the center of the leaves. Calling the flowers attractive is being kind. The sap of this species may cause blisters or a rash.

Azalea — (*Rhododendron ssp.*) Here we have the Southern California member of the rhododendron family. It grows in bushy clumps with dark green leaves. It blooms profusely in the fall, sending out lovely flowers whose color depends on the plant variety. It is a popular plant grown in pots to give as gifts. All parts of it are poisonous if ingested.

Carolina Jessamine — (*Gelsemium sempervirens*) An evergreen vine that exhibits shiny light green leaves and fragrant tubular flowers. The scent is divine, but all parts of the plant are poisonous.

Castor Bean — (*Ricinus communis*) This almost tree-like shrub grows with abandon in empty lots and in waste areas. It self-seeds very easily, is drought resistant and can stand lots of heat. The leaves are reminiscent of maple leaves in their shape and size. It produces large mottled shiny seeds which are very toxic. Foliage or seeds occasionally cause severe contact allergies. It is best to remove and destroy it rather than taking chances.

Dumb Cane — (*Diffenbachia seguine*) An indoor plant, mostly. It has large variegated leaves and makes an attractive indoor plant with easy growing requirements, however, the leaves and sap are poisonous and if you trim them and get sap on your hands, wash them off immediately. The common name reflects the fact that acrid sap will burn mouth and throat, and may paralyze vocal cords if ingested.

Elephant's Ear — There are two ornamental varieties of the plant. Polynesians have used *Colocasia esculenta* to make poi or taro root paste. (Best not to try this.) The second, *Alocacia ssp.*, is used strictly as a decorative plant that shows off copper tones in its leaves. One type, *Alocacia macrorrhiza* produces flowers that result in red fruit that is shaped like little corn cobs. Best not to use this plant if you have children.

Holly — *Ilex aquafolium* is the Christmas Holly with dark green leaves with spiky ends and lots of poisonous red berries. It is an obviously attractive plant that would tempt a child. If you use it as a decoration, place it well out of reach of both small and large hands.

Japanese Iris — (*Iris ensata*) In the beardless iris group, contact with the rhizomes may cause dermatitis.

Jerusalem Cherry — (*Solanum pseudocapsicum*) This is an attractive container plant. It has fairly long deep green leaves and toxic tomato-like red fruit that may be a tempting target for small hands.

Mexican Bird Of Paradise — (*Caesalpinia Gilliesii & mexicana*) A plant also known as the Poinciana which is a member of the pea family. Do not confuse it with the large leafed Bird Of Paradise (*Strelitzia regina*). It blooms all summer with bright yellow flowers. The foliage is feathery and similar to the pea family leafings. Both flowers and leaves are toxic.

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Mother-in-law Plant — (*Caladium bicolor*) Here is a very showy leafed plant. It is grown to show off the large heart-shaped leaves of many variations and colors. It needs a tropical culture which means that most of the time it is a house plant and is grown indoors. The entire plant is toxic.

Oleander — (*Nerium oleander*) A large shrub that proliferates here. It has narrow green leaves and many varieties of colorful single and double flowers. It is used extensively on parking strips and against walls and fences. All parts are poisonous if eaten and if the trimmed parts are burned, the smoke can be very irritating.

Philodendron — (*Philodendron ssp.*) This plant is a favorite to give as a gift, because its leaves are so attractive and it makes an ideal easy-to-care-for indoor plant with its vine-like trunk supported against a shaggy post stuck into the center of the container. Be careful when pruning and be sure to wash your hands well. The stem and leaves are poisonous.

Poison Oak — (*Rhus diversiloba*) Includes poison sumac (*Rhus Vernix*) as well. As any careless hiker can attest, it can cause a lot of discomfort if you get any of its exudations on your skin. Find good illustrations of these plants and learn their characteristics so that you can avoid them. (See book review, page 121.)

Privet — (*Ligustrum*) A widely used plant for hedges. It takes trimming and shaping well. It will produce a blue colored berry which the birds will eat, but don't you try it!

Red Sage — (*Lantana camara*) This plant is widely grown in yards all over the Southland. It is rugged and can spread easily. It displays smallish very colorful flowers at the end of stems on the tips of the plant most of the year. Damaged leaves give off an offensive smell which should deter experimentation. The green berries are poisonous.

Wisteria — This vine is used widely as a growing cover for patios and lanais. It grows pendulous blue flowers in the spring in profusion. Seeds and pods may cause severe digestive upset, especially in children.

There are many more common plants with toxic effects. If you are unsure about what to do about poisonous plants and antidotes, look in the telephone book white pages on page B8 for first aid for poisoning. The number for the Poison Control Center is 543-6000 or (800)876-4766. Also, query your nurseryman about prospective plants for the possibility of being toxic. Look them up in the various garden books that are on display in the nursery.

* * *

SOURCES:
Kaiser Foundation Hospital Volunteer Association "Sinister Garden"
Information on Toxic Plants, from UCSD Medical Center presented by Chula Vista Garden Club
Sunset Western Garden Book, 1988

ROBERT D. HORWITZ is a retired space engineer who enjoys gardening and writing.

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THE VERSATILE CONEFLOWER

Catherine L. Zinsky

MORE FAMILIARLY known as the coneflower, *Echinacea purpurea* is a garden perennial not often grown here in Southern California, and it should be. The blossoms have all the attributes a cut flower enthusiast could demand, the plant itself is compact, and cultivation is almost trouble free.

Coneflower (*Echinacea purpurea*) Photo by Betty Newton

Echinacea is a North American wildflower, though today's hybrids far excel the prairie herb once sought by Indians to soothe an inflamed hand or treat snakebite. These free flowering coneflowers belong to the Daisy family, *Compositae*, and were once classified as a *Rudbeckia*, which is also commonly called 'coneflower'.

The raised, conical seed pod gives the coneflower its name. In *E. purpurea* this cone has an iridescent, coppery color that gradually turns quite dark as the seed pod matures, making the cone itself — stripped of all flower petals — an interesting oddity in floral displays.

As cut flowers these daisy-like blooms are exceptional: their raised conical center gives them distinction; they are long-stemmed; and they have a long 'vase' life. In addition, the cone can be dried for everlasting arrangements. The flower itself has a light scent and averages four inches across. As the fall months approach, however, bloom size diminishes, as does stem length.

Depending on the cultivar, colors will range among various shades of rose to purple. There are also two white species, 'White Swan' and 'White Lustre'. The plant itself averages about three feet high, which is a rather nice size for the middle border. It's neither invasive nor does it reseed freely, and its dark green leaves offer an attractive setting for the numerous blooms produced, which, if deadheaded, will continue here until late fall.

Cultivation is simple: any well-drained soil will do, and the plant does equally well in full sun or part-shade. I have noticed, however, that when given partial shade, the blossoms' color seems richer. (This is inland.) The plant goes dormant through the winter, but 'springs' back as the soil warms.

Propagation is by seed or division, though it is recommended that divisions be infrequent. I have attempted both with success and ease. Almost all seed catalogs offer this distinctive and versatile coneflower. Locally plants are available at Mission Hills Nursery and Poway Nursery, seeds are available at Walter Andersen's Nursery.

Echinacea purpurea is truly a carefree perennial that has the added bonus of being drought tolerant, so not only does it please aesthetically, it slakes our thirst for unthirsty plants. What possibly more could a gardener ask of a plant!

* * *

CATHERINE L. ZINSKY is the staff garden columnist for the *East County Weekly*.

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Now Is The Time . . .

A CULTURAL CALENDAR OF CARE FROM OUR AFFILIATES
Compiled by Penny Bunker

AFRICAN VIOLETS
Helen LaGamma

KEEP violets well groomed.
CHECK to be sure your plants are not crowded.
PLACE pans of wet pebbles among plants — this will increase the needed humidity.
SPRAY plants with warm water — warm water prevents shocking the plants.
KEEP growing area clean — wipe down with a mild solution of Lysol™ and water. Circulate the air with a fan and use pans of wet pebbles. This is important to prevent mildew.
USE cool light tubes if your violets are under lights. If using natural light, place the plants farther away from the source.

BEGONIAS
Margaret Lee

INSPECT and groom plants regularly during the growing season.
MAKE cuttings of material removed in grooming.
WATCH watering — make sure the plants do not become too dry.
REMOVE dead leaves from plants.
ADD more potting mix to pots as needed to keep roots covered.
SHIFT plants to next size pot if needed.
POT *rooted* leaves and cuttings.
WATCH for mildew and spray to eliminate; control snails and slugs, and spray for mealybugs and loopers.
CONTINUE feeding to keep plants blooming.
REMOVE old flowers from tuberous plants by snapping only the blossoms — not the stems.
FEED tuberous plants with Hi-Bloom™ — 1 Tbsp. to 1 gal. water, and 1 Tbsp. fish emulsion to 1 gal. water.

BONSAI
Dr. Herbert Markowitz

CHECK for insects and pests; spray with diluted pesticides.
WATER carefully — some plants may require watering two or three times a day if the weather is hot and dry.
MIST and spray foliage of certain bonsai morning and evening.
MOVE some plants into shaded areas out of the noon-day and afternoon sun.
STOP repotting except in emergency situations.
WAIT until September or October to transplant bonsai.
KEEP debris, weeds, dead leaves cleaned out.

BROMELIADS
Mary Siemers

PROVIDE filtered sunlight to keep plants from burning during the hot summer. Some hobbyists keep them under trees, shade cloth, lath, structure, fiberglass, or any materials that will provide bright filtered light for plants to obtain good color.
WATER preferably in the evening or early morning. The frequency depends on the temperature in your area. Spray plants filling their cups and let water overflow the leaf bases and media. Be careful the media does **not** become **soggy**.
FERTILIZE your plants throughout the warm months only. A time-release fertilizer, such as Osmocote™ 14-14-14, spread over the soil every three months is recommended.

CACTI & SUCCULENTS
Joseph A. Betzler

WATCH plants during the hot weather, if they dry out too much they can shrivel and burn in the sun. Protect those delicate specimens with screen.
WATER plants as they dry out — be careful with those plants that are dormant.
FERTILIZE growing plants ½ strength every other watering.
WATCH plants for pests, especially snails. Treat immediately for any pests that you observe — treat insecticides carefully following instructions.
CHECK collections for plants that need repotting and do so.

WATCH seedlings and keep them growing by repotting as they fill their pots.
KEEP dormant plants from too much exposure of bright light.

CAMELLIAS
E. C. Snooks

FEED with cottonseed meal, fish emulsion, or other camellia fertilizer. Remember **not** to feed a dry plant — **water** well **before** feeding and right **afterward** also.
MULCH with bark, pine straw, or any other suitable medium.
MAINTAIN a regular watering cycle; roots must never be allowed to dry out, be damp but **not wet**.
ADD IRON to feeding for good leaf color and bloom color.
CHECK for insects damage from looper worms, aphids; spray with malathion or Cygon™. For scale or mites use Kelthan™ or Cygon™.
STAKE out new growth before it hardens.

DAHLIAS
Abe Janzen

SPRAY for insects and mildew. Keep snails and slugs under control.
DISBUD plants to encourage better blooms.
KEEP old blooms cut back to the first set of leaves from the main stalk to prolong blooming.
TIE up side branches to prevent breaking.
CONTINUE regular watering program.
SPRAY for mites if necessary, watch for snails.
FEED with 5-10-10 fertilizer to promote bloom and root growth.
CUT blooms in late afternoon or early evening and place immediately into water — they hold better this way.

EPIPHYLLUM
San Diego Epiphyllum Society

FERTILIZE plants that have completed their blooming cycle with fish emulsion, slow-release nitrogen fertilizer or any good balanced fertilizer. Do **not** overfeed.
REMOVE spent blooms and unwanted apples in order to conserve the plant's vitality.
TRANSPLANT to larger containers, plants that have outgrown their present container — move to next size or a bit larger.
PLANT new cuttings during the warm weather to allow new growth to become established during the growing season.
WATER during the hot summer months and spray occasionally or mist. Do not allow soil to completely dry out.
AVOID direct exposure to the hot summer sun; place under lath, shade cloth, or suspend under branches of trees.

FERNS
Ray Sodomka

PLANT fern spores.
TRIM dead fronds.
WATER and maintain humidity by keeping the surrounding areas damp.
FERTILIZE plants regularly as they are in their growth period. Use a high-nitrogen fertilizer.
SPRAY for aphids and scale; keep snails, pillbugs and slugs under control.

FRUIT TREES AND VINES
Vincent Lazaneo

MONITOR soil moisture within the root zone and irrigate when soil begins to dry. Periodically apply enough water to leach salts below plant roots (3-4' deep).
SUPPORT limbs which have a heavy fruit load to prevent breakage. Begin harvesting fruit as soon as it is ripe. Remove fruit which is damaged or on the ground to discourage green fruit beetles and other insect scavengers.
PRUNE out shoots killed by fire blight on pear, apple, quince, and loquat. Make cuts at least 12 inches below (if possible) infected tissue and disinfect pruning shears between cuts. (See article on fireblight, page 116.)
KEEP ants off of trees and periodically wash foliage with a forceful spray of water to promote biological control of spider mites, aphids, whiteflies, scale, and other insects.
INSPECT new leaves for signs of zinc and iron deficiency. Apply micronutrient spray if needed.
PRUNE out blackberry and raspberry canes which have borne fruit.

FUCHSIAS
William Selby

FERTILIZE regularly with a balanced fertilizer — perhaps ¼ strength once a week.
KEEP soil moist in all your baskets and containers but **not** wet. Do **not** over water.
MIST foliage of plants; spray only in the shade or early evening as moisture on the plants can result in burn spots.
PRUNE lightly after blooming to shape and encourage more blooms for the fall.
CONTROL insects. Plants may be sprayed or drenched with Cygon™ 2-E, malathion, Diazinon™, to name a few. Follow the manufacturers' instructions. Orthene™ may be used for aphids, leafhoppers, thrips, scale, whitefly, leaf miners, etc.
KEEP dead leaves, spent blossoms, seed pods, etc. picked off to prevent fungus and disease.

GERANIUMS (PELARGONIUMS)
Carol Roller

WATER thoroughly when plants become relatively dry. Each watering should moisten the entire soil ball. Excess water should drain away. Keep foliage as dry as possible.
CONTINUE feeding a balanced fertilizer dissolved in water. Use at less than full strength, but apply as often as needed to keep plants from developing nutritional deficiencies. Long term pellets may be used instead.
CONTINUE pest control and disease prevention using products according to the manufacturers' directions.
GROOM plants, removing discolored leaves and faded flowers. The long bloom stalks on regals and scenteds should be cut away with a sharp blade.
TAKE cuttings from zonals and ivy-leaf types, if desired. Each cutting should have a healthy growing tip.
PROTECT tender plants from the sun if temperatures are high; move to sheltered spot or create overhead shade.
CONTINUE to rotate pots on a regular basis in order to keep plants well-shaped.

IRIS
Iris Society

REVITALIZE planting areas by working humus into the soil.
DIVIDE and replant tall-bearded iris, discarding the spent rhizomes.
DUST cut ends of rhizomes with soil sulphur before replanting.
CUT OFF spuria iris foliage, but do not dig until September.
KEEP iris beds clean and free of old fans and weeds.
FEED those iris left in the ground with a high-nitrogen fertilizer this one time.
WATCH for aphids; use a light insecticide or a systemic to reduce infestation of scale or red spider mites.

NATIVE PLANTS
Jeanine De Hart

PLAN for fall planting. Check to see that the natives you wish to plant will be available. If you let a native plant nursery know your wishes ahead of time, they may be able to grow them for you.
RESIST the urge to over water the natives. Many are drought deciduous or semi dormant in the heat of the summer. Others have various mechanisms for dealing with summer drought.
WATCH for hot weather pests, such as spider mites. Encourage lacewings and lady bugs by not spraying. You may have to control ants in order that the beneficials can do their job. Ants farm the *Homoptera* pests for the honey dew they excrete and protect them from the predators.
ENJOY the blooms of Matilija Poppy and give it a periodic deep soaking. Once every 10 days isn't too much if your drainage is excellent. Otherwise every 3 weeks will extend the bloom period.

ORCHIDS
Charles Fouquette

SPRAY if at all possible on hot days. Shield the plants from drying winds and drafts.
WATER *Cymbidiums* heavily if they are in coarse planting medium.
GROW *Cymbidiums* in sunlight, but do not burn.
CONTINUE to spread snail and slug bait; check with local nursery about latest products.
WATCH for infestation of scale and red spider mites; treat accordingly. This time of year when humidity is low and it is warm, various insects of all kinds will hatch and hatch.
KEEP *Cypripediums* and *Paphiopedilums* **moist**, but **not** wet; repot after flowering; consider using a bit finer mix so you might not have to water so often - again see your local nursery.
WATCH that the *Oncidiums* have plenty of air movement; keep roots damp but **not** wet; allow to dry out a bit once in a while.

PLANT *Dendrobium* offshoots (kikis) when roots are about two inches long; the same goes for *Phalaenopsis*, *Vandas*, *Ascosendas*, *Aerides* and *Vandopsis*; roots of the last 4 listed could be longer before planting.
CHECK new seedlings — if small, they need added care because the low humidity may cause them to desiccate; keep them misted. Use "Cloud Cover™" from your nursery to cut down on seedling loss.

ROSES
Brian Donn

WATER regularly — twice a week if you want the best quality blooms during the summer.
MULCH and have a good drip-irrigation or basin type watering system to minimize wasted water.
CHECK for mites and spray as needed with Maverick™ or Orthenex™.
BE SURE to water 12 to 24 hours before spraying. Will prevent "leaf burn" from the chemicals. Use an efficient sprayer and thoroughly wet underside of leaves as well as tops.
FEED generously in late August including giving Epsom Salt — your roses will respond like crazy in the fall.

VEGETABLES
Vincent Lazaneo

MAKE last planting of warm-season vegetables (tomatoes, peppers, eggplant, corn, beans, summer squash) in July for fall harvest.
PLANT seed of cole crops (cabbage, broccoli, cauliflower) in August for winter harvest. Cover seed with floating row cover to protect young plants from insect pests.
WITHHOLD water from rhubarb and artichoke and allow plants to go dormant until fall.

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TO CONTROL corn earworm, apply Carbaryl (Sevin™) or B.T. when silk first emerges, then every three days until silk turns brown.

GREEN THUMB
REMOVE tops of spring bulbs after all foliage has died.
DIVIDE and plant Shasta daisies.
MOVE and take divisions of Bird-of-Paradise.
PINCH chrysanthemums for lusty plants and more flowers.
PLANT flowers for fall color; calendulas, cornflowers, stock, snapdragons, zinnias, and some perennials such as coreopsis, gloriosa daisy, and lavender.
MULCH as much as possible to reduce weeds and conserve on water. Spread 2-3" layer of compost or bark, then turn into soil to improve.
WATCH for and control pests and disease — mildew, spider mites, thrips, whitefly. Blast with water or can use chemical sprays or drenches.

* * *

GRAPHIC ARTIST Celia Hanson has provided us with the individual illustrations for each of the plant types published in *Now is the Time*, as well as the signature graphic for the column and the Book Reviews. We appreciate this delightful addition to *California Garden*.

SURVEY RESULTS SOON

THE MAY-JUNE renewal period marked the full year for including the *California Garden* subscribers' survey in renewal notices. We would like to thank everyone who participated. Your responses are all being read and tabulated. They mean a lot to us and have been most helpful in the development of the present format for the magazine.

We hope this is not the last time we will hear from you. As you have ideas for articles and improvements for the magazine, we love to hear them, so call us or drop us a line. We welcome assistance from new writers and artists and there is always need for help with production and office work. If we have not yet contacted you from your returned survey, we hope to this summer. Some willing helpers forgot to give us their names...please call!

While we are already incorporating some of your ideas, in the September-October issue of the magazine we will begin to share some of the quantitative results of the survey. You can see if our other readers agreed or disagreed with what you like about the magazine.

We hope that when you patronize our advertisers, you will mention their participation in *California Garden*. These businesses have been very loyal in supporting our efforts to produce the best possible information for gardening in Southern California.

SUMMER IS THE TIME TO PRUNE OUT FIREBLIGHT

UC Cooperative Extension

LOOK CLOSELY now at your fruit and ornamental trees. If the blossoms, leaves or twigs look as they have been scorched by fire it is not likely that the neighbor's kids have been playing with matches again. They probably have fireblight, an infection caused by the bacteria *Erwinia amylovora*.

According to Arthur H. McCain, plant pathologist, UC Cooperative Extension, this disease, also know as pear blight, affects plants in the rose family (*Rosaceae*). Pears and quince are extremely susceptible, but crabapples, apples and *Pyracantha* species are frequently damaged too, as well as toyon, loquat, mountain ash and other related plants.

The disease develops when temperatures of 70-85°F combined with high humidity caused by dew, rain, fog or irrigation — especially overhead irrigation, says the Berkeley scientist. Bacteria enter through blossoms, progress down a shoot of the tree, and produce a canker on a branch. Unless it is cut out, the canker will remain through winter. Next spring, bacteria will ooze from the canker in small sticky drops. Flies, ants and other insects as well as water from rain or sprinklers then will carry the bacteria to blossoms and the cycle begins again.

Control the disease by cutting and pruning out diseased twigs and branches well below the infected areas, six to twelve inches or more, if possible. To avoid spreading the blight, sterilize the cutting tools with a disinfectant such as a 5% Lysol™ or 4% Amphyl™ solution. You could also use household bleach, but be aware that it will corrode metal and clothing.

Protect blossoms — the most susceptible part — by spraying with a copper-containing spray. A very small amount of copper will do the trick. For instance a ½-½-100 bordeaux spray will control the disease on pear trees, however, every blossom must be sprayed.

The number of applications depends on the blooming period. Apply when 10% of the blossoms are out and every week or so until bloom discontinues. If spraying every blossom gets tedious, even one or two applications will help.

Fireblight begins on tender new shoots so if it continues to be a problem, avoid too much nitrogen fertilizer and large amounts of water. Withholding these nutrients will slow growth, McCain explains.

* * *

To simplify information, trade names of products have been used. No endorsement of named products is intended, nor is criticism implied of similar products which are not mentioned.

Hawthorn twig infected with fire blight.

Fire blight entered through this pear tree's blossoms, progressed down the shoot, and produced a canker on the branch.

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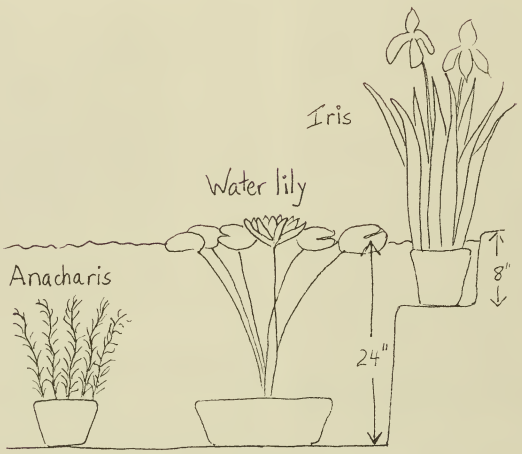
BUILD A BACKYARD OASIS

Diana Goforth

IT IS NO accident that places like Denver and Arizona which have strong water conservation programs also have the most active water garden societies. This can be attributed to the complementary nature between the drought tolerant landscape and a backyard oasis, the water garden. Even a small pool or fountain of trickling water adds a refreshing coolness to any landscape.

While giving the illusion of coolness, a water garden uses little water if properly made. After the pond is initially filled, there is no need to constantly irrigate. As illustrated, evaporation can be greatly reduced by using plants to cover part of the surface. Maintenance is minimal once the pond is balanced. Following are a few guidelines for creating a successful water garden:



Pond Plants

Diana Goforth

Pond Location — The site should receive **at least** five hours of direct sunlight a day. Most water lilies need that much light to bloom. Leaf litter should be minimized as much as possible. Deciduous trees or messy trees like the pepper or eucalyptus can turn a simple maintenance chore into a big headache. Runoff water from higher soil elevations should be avoided. Chemicals such as pesticides and fertilizers could leach into the pond and harm the fish and plants.

Pond Size — In this case, bigger is better. A large volume of water heats up and cools down slowly, creating a more stable environment for the plants and animals. Also, warm shallow water promotes algae growth and depletion of oxygen.

Pond Depth — Ideally, the pond should be multi-leveled to accomodate the different types of plants. Water lilies, for example, need 6-18" of water above the rim of the pot; bog plants require only 2-3". The pond, then, should have a central depth of 2-3' and a ledge 8-10" deep.

Pond Materials — Ponds can be made of concrete, fiberglass or by using a PVC liner. When using concrete it is best to line it with PVC as added security against leakage. It is also important to give it a "vinegar wash" to neutralize the alkalinity which is harmful to both plants and fish. Fiberglass ponds are the simplest to install. Just dig a level hole, set the pond in the hole, and fill with water. While adding the water, fill in the surrounding soil so it fits snugly against the outside surface of the pool. PVC liner ponds are the most inexpensive to make. The 20 mil. liner is guaranteed to last ten years. Use a hose or rope to design the pond. Dig the hole. Smooth out the dirt as much as possible. Add a ½" layer of damp sand to the entire surface to prevent sharp objects from puncturing the liner. (Newspapers or old carpets also work well.) Lay the liner in the hole and slowly fill with water adjusting the liner as needed. Place flat stones around the perimeter to hide the plastic liner edge and to provide a natural look.

Stocking the Pond with Plants — After filling the pond with water, treat with a chloramine neutralizer. Now add some plants. To keep the water clear, cover 60-70% of the pond surface. This creates shade which will reduce the growth of algae. Plants that provide this function include water lilies (*Nymphaea* ssp.), water hyacinth (*Eichhornia crassipes*), water lettuce or shell flower (*Pistia stratiotes*), floating fern (*Azolla* ssp. - can be invasive), four leaf water clover (*Marsilia mutica*), water poppy (*Hydrocleys nymphoides*) and water hawthorne (*Aponogeton distachyus*).

It is also important to include oxygenating plants, which compete with algae for nutrients and provide spawning places for fish. A good rule of thumb is to have two bunches per square yard of pond surface. Oxygenating plants include anacharis (*Elodea canadensis*), eelgrass (*Vallisneria americana*) and parrot's feather (*Myriophyllum aquaticum*).

Bog plants provide interest to a pond by adding different heights, foliage and color throughout the season. In nature these plants grow at the water's edge; in the home pond place them (in a pot) on the eight inch ledge. Examples include cattail (*Typha latifolia*), horsetail (*Equisetum hyemale*), pickerel rush (*Pontederia cordata*), Sagittaria (*Sagittaria* ssp.), thalia (*Thalia dealbata*), umbrella palm (*Cyperus alternifolius*), dwarf papyrus (*Cyperus haspans*), green taro (*Colocasia esculenta*), arrowhead (*Sagittaria latifolia*) and iris.

Stocking the Pond with Scavengers — Scavengers will help control the algae that grows on the inner walls of the pond. Water snails are a good choice. For every square yard of pond surface, add a dozen water snails.

Stocking the Pond with Fish — Before adding any fish, water should be treated with a chloramine neutralizer and allowed to "season" for a few days. Test by adding some inexpensive mosquito fish. Most pond owners have too many fish in the pond which upsets the balance creating an unattractive water garden. A good rule of thumb is to have no more than two four-inch fish for every square yard of pond surface. Popular pond fish are goldfish and koi. For koi, you will need to oxygenate the water with a recirculating pump. If no fish are desired it is still necessary to have mosquito fish which eat mosquito larvae.

Pond Balance — When the pond is first filled, the water is essentially void of life. After a few days, the chemicals used to keep the water clean will evaporate. The water starts turning green, "slime" forms on the side walls and mosquito larvae start wiggling on the surface. This is actually a good sign. The pond is alive! Now begins the game of balancing the pond. Balance occurs when there is enough oxygen for the fish (from oxygenating plants), there is enough food for scavengers (from fish waste and algae growing on the side walls), and there is just enough algae for bacteria to thrive. By following the above guidelines a balanced pond can be easily achieved.

It is not difficult to add a water garden to any landscape. The miniature ecosystem will add much interest to the experience of gardening.

* * *

DIANA GOFORTH is office manager and an active volunteer at Quail Botanical Gardens Foundation, Inc.

Horticultural Calendar (Cont'd)

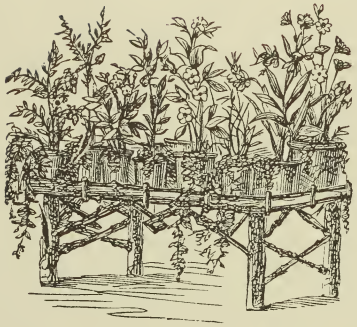
Sep. 19	**AMERICAN BAMBOO SOCIETY** Show & Sale Ecke Building, Quail Botanical Gardens, 230 Quail Gardens Drive, Encinitas. Experts will advise on bamboo types, care & use in landscaping. All display plants for sale after 1 p.m. 12-4 p.m. Admission free. $1 parking. Call 453-0334.
Sep. 19 & 20	**HEARTLAND AFRICAN VIOLET SOCIETY** 3rd Fall Show Casa del Prado, Majorca Room, Balboa Park. Sat. 1-5 p.m.; Sun. 10-4:30 p.m. Free.
Sep. 26 & 27	**SAN DIEGO BONSAI CLUB, INC.** Fall Show Casa del Prado, Majorca Room, Balboa Park. Sat. & Sun. 10-5 p.m. Free.
Through Oct. 12	**AMERIFLORA '92** First Ever International & Garden Exposition Held in U.S. Franklin Park, Columbus Ohio. Write Mrs. Harold A. Bird, Jr., 3826 Chevington Road, Columbus, Ohio 43220.
Throughout 1992	**DECORATIVE ARTS STUDY CENTER** Andalusian Patios Exhibition 31431 Camino Capistrano, San Juan Capistrano. Garden developed by Carol Greentree demonstrates Spanish design & its relationship with California climate. Call 714/496-2132 for hours & fee.
Weekly	**SAN DIEGO JAPANESE FRIENDSHIP GARDEN** Docent Tours Balboa Park by Organ Pavilion. Tues., Fri., Sat., & Sun. 10-4 p.m. Donation. Free garden admission Tues. Call 232-2780.
Every Saturday	**QUAIL BOTANICAL GARDENS** Free Guided Tours 230 Quail Gardens Drive, Encinitas. Meet at Visitor's Center. 10 a.m. For pre-scheduled tours (any age), call 436-3036 Tues.-Fri. 10-1 p.m. Garden admission free. $1 parking.
Every Saturday	**OFFSHOOT TOURS** One-hour Plant Walks in Balboa Park Meet in front of Botanical Lath House. Cancelled for rain or less than 4 attendees. 1st Sat. History Walk; 2nd Sat. Palm Walk; 3rd Sat. Tree Walk; 4th Sat. Desert Walk; 5th Sat. Sample of all four tours. 10 a.m. Free. No reservations.

Deadline for submission to HORTICULTURAL CALENDAR for Sep./Oct. issue is Jul. 15.

SAN DIEGO FLORAL ASSOCIATION is not responsible for changes in information which has been submitted by the organizations.

WINDOW BOX GARDENING

Tineke Wilders



VISITORS TO Mediterranean countries surely have admired the ubiquitous window boxes that are visible anywhere: in front of homes, restaurants and along balcony railings of apartments. They are an important part of everyday life. Yet for unknown reasons, here in the San Diego area, they are not very common. I think adding a third dimension of flowering greenery not only extends an existing garden, but also boosts the beauty of our city. Every time I see a window garden, my heart opens up and I imagine being back in my native country Holland, where window box gardens are also very popular.

Even though window box gardening could be called just another alternative to container gardening, it has some special elements to it that I would like to describe. First of all, it gives a house or an apartment a friendly, welcome face. And the plants can be enjoyed looking out from the inside of the house as well.

Some people think that window box gardens need a lot of water. Actually, depending on the plant material you choose, they do not require any more water than other container gardens. There are many low-water use plants that do beautifully in a window box. For instance, a great combination is the charming, almost ever-blooming purple sea-lavender, also known as statice (*Limonium perezii*) combined with pink geraniums (*Pelargonium*). A visit to your local garden center will assist you in choosing the flowering plants that you like that are in bloom right now. However, before selecting the plants, determine what exposure they will have, i.e., will it be a shade garden on the north side of the house, or a sunny garden on the west side of the house? Selecting the right plants for the right location will make all the difference in your success and enjoyment of your window box.

- For a very hot and sunny location, for example, consider a miniature desert garden planted with aloes, agaves, barrel cacti and other flowering succulents.
- Apartment dwellers with a balcony garden, can consider growing salad greens, herbs and shallow rooted vegetables. With the addition of a small trellis, beans, cucumbers and cherry tomato plants will do fine.

The fun part for me is playing with flower colors. I personally like the cool colors, such as blue and purple with added whites and pinks. You may prefer warmer colors, such as yellow and orange. Or you may like to be very adventurous and combine warm and cool colors.

Be sure to include some trailing plants such as sweet alyssum, lobelia, swan river daisy, and ivy geraniums.

The choice of material for window box containers is diverse: wooden boxes, plastic, concrete, metal, clay. Non-porous material is preferred, so the soil does not dry out too quickly. But this shouldn't limit you, the inside of porous materials can be sealed with asphalt roofing sealer.

Keeping your window box garden in the green shouldn't be hard with current technology. Drip systems are the most efficient watering devices adding water slowly through emitters and allowing for deep penetration. Mulches, such as sawdust, small shredded bark, bark chips, pine needles, grass clippings or tree leaves can be added to the top of the soil, which reduces evaporation and keeps the plant roots cool.

Superabsorbent soil polymers can be mixed in, either wet or dry, with the potting soil at the time of planting. They have the capacity of absorbing 200 to 400 times their weight in water, serving as a mini-reservoir for the plant roots until the time they need it. Slow release fertilizer can also be added at the time of planting, eliminating the need to fertilize for the next three to six months.

Have fun creating your own window box gardens and remember that you don't have to limit yourself to spaces below your windows. They can be placed on balconies, line the entrance path to your front door, decorate your patio garden or even be placed on top of a retaining wall.

* * *

TINEKE WILDERS is a freelance garden writer/broadcaster living and gardening in San Diego.

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MAIL PROVEN CAUSE OF FRUIT FLY INFESTATION

California Department of Food and Agriculture

FIRST-CLASS MAIL from Hawaii has been irrefutably proven to be a means by which exotic fruit flies enter California, according to the California Department of Food and Agriculture (CDFA).

From May 1990 to March 1992, 850 parcels containing 6,242 pounds of prohibited plant material were confiscated and penalties were levied in a cooperative program between the United States Department of Agriculture (USDA-APHIS) and the U. S. Postal Service. Sixty-three of those parcels were infested with exotic fruit flies, as follows:

	Total Interceptions	
	For the Mainland	For California
Oriental fruit fly	36	25
Mediterranean fruit fly	7	5
Melon fly	18	7
Malaysian fruit fly	2	1

Of the 850 parcels intercepted on their way to the mainland, 60% were destined for California, with the majority of those headed for Southern California. When addresses of parcel destinations were mapped, they corresponded closely with sites of insect detections and eradication projects. CDFA officials are certain that many of the long and costly fruit fly eradication programs in Southern California have been attributable to illegally mailed fruit. CDFA records show that since 1982, it has conducted 39 Oriental fruit fly eradication projects in seven California counties. CDFA biological protocol, after trapping an adult Oriental fruit fly, calls for intensive (delimitation) trapping at an average cost of $20,000 per detection. If delimitation trapping confirms the existence of an infestation, the eradication costs can run into hundreds of thousands of dollars.

It is illegal to ship uninspected fruits, vegetables, and other plant materials via first-class mail or express carrier from Hawaii to the mainland. The Congressional passage of Public Law 100-574 in November 1988 strengthened existing regulations, making it a criminal offense to ship prohibited plant material, punishable by up to a $1000 fine and/or a year in jail.

The increasing costly infestations are causing stricter enforcement. However, international travelers bringing illegal food or plants into the country have one additional opportunity to get rid of them without a fine. CDFA is now testing the placement of amnesty bins at major international airports. They afford the travelers arriving on foreign origin flights, the opportunity to dispose of regulated produce, plants, plant products, and meat and meat products, prior to having to declare those items or face fines. The bins advertise the fact that many fresh fruits and vegetables are not allowed in the U.S. Starting with four bins, LAX was one of the first airports in the state in this test program. At the one-year anniversary of their introduction in April, 1991, bins at LAX intercepted over 1,250 prohibited items. The program has been so successful that San Diego is on the list to receive bins as they become available.

* * *

Amnesty Bin at LAX

Photo: CDFA

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Book Reviews

Ingwersen, Will
ALPINES IN COLOR
London, Caddell Publishing Co., 1981, 153 pages, 63 color photos, hardcover

When many of us think of alpine flowers we think of those dear little flowers we see growing in the high mountains. But this lovely book shows us, with wonderful color pictures and descriptions, many flowers that would grow well here in Southern California, by the coast or in the mountains. With our small gardens, accented with rocks, this collection of plant material would be a wonderful welcome for those of us wanting something different. Interesting background information is given about where this alpine color comes from. This is very useful information when picking out plants for our climate.

BOOK REVIEW BY KATHLEEN SMITH

* * *

Andrews, Jean
PEPPERS, The Domesticated Capsicum
Austin, TX, The University of Texas Press, 1984, 170 pages, 32 color plates, b&w illust., 9" x 12", softcover, $32.95

In its new softcover edition, this volume still probably contains far more information than the average *capsicum* enthusiast will care to digest, at least in one or two sittings, but for those with a passion for the fiery fruit, Jean Andrews has produced a valuable resource.

Peppers gives the reader an extensive historical, biological and economic background for genus *capsicum*. Andrews explores a range of topics from ancient trade routes and possible origins of the plant to current U.S. pepper production statistics. The depth of this work is illustrated by a footnote analyzing the therapeutic chemical interaction of human skin, pepper juices and bleach (complete with chemical compound symbology); an item of interest for anyone careless enough to process hot pepper varieties sans rubber gloves.

Thirty-two beautiful color plates rendered by the author, and their companion narratives, portray pepper varieties most common to our everyday dining and ornamental experience. Pepper recipes are also included — the gastronomic exclamation point for this worthwhile effort.

BOOK REVIEW BY WILLIAM CONE

* * *

Frankel, Edward
POISON IVY, POISON OAK, POISON SUMAC AND THEIR COUSINS
Boxwood Press, Pacific Grove, CA, 1991, 98 pages, b/w illust., photographs, softcover, 8½" x 5½", $9.95

Here is all you need to know about toxicodendrons, with emphasis on the three most well-known to the layman. In his preface, Dr. Frankel states that his book is designed to provide up-to-date information and to counteract confusing superstition and misinformation, and for good measure he has added a useful bibliography for those who wish to read more. He tells us how to identify the baddies and gives much practical advice on prevention and treatment of the Toxicodendron Terror. His advice on controlling these poisonous weeds is given authoritatively and graphically. He adds a few pages in praise of toxicodendrons to round out his work. This is a very handy book which should find a ready audience.

BOOK REVIEW BY ELSIE TOPHAM

* * *

Hall, Clarence J., Editor
NATURAL HISTORY OF THE WHITE-INYO RANGE; EASTERN CALIFORNIA
Berkeley, Univ of Calif Press, (California Natural History Guides #55), 1991, 536 pages, b&w photos/illust., color photos, 9½" X 6¼", hardcover, $75.00

This comprehensive, thorough and scholarly study of the White-Inyo Mountains in East Central California is a compilation of contributions from nearly twenty scientists, half of whom are associated with the University of California. The account covers many aspects of the region, including physical features, flora and fauna, meteorology, and archeology and anthropology. It is intended as a guidebook for the use of visitors to the Bristlecone Pine Forest and to aid students and faculty from universities and government organizations; there are four laboratories in the area.

The text has many black and white diagrams, drawings and maps, plus black and white and color photographs, all of which are meticulously indexed; when compared with the quality of the color work the black and white photos are the least useful feature. There is a good glossary preceding the index and excellent bibliographies at the end of each chapter; these are often extensive and indicate wide-ranging research. The introduction states that recreational use of the area is light because of the lack of water, so reader use of this book is likely to be moderate. Nevertheless this volume is of more than passing interest to the armchair traveller and its 500 plus pages are a mine of information. A large book about a beautiful part of California. Well worth the price.

BOOK REVIEW BY ELSIE TOPHAM

* * *

Morine, David E.
GOOD DIRT; Confessions of a Conservationist
Chester, CT, Globe Pequot, 1990, 195 pages, 9" X 6", hardcover, $19.96

This is a collection of stories based on the author's experiences as a conservationist. He was with the Nature Conservancy for eighteen years and has a distinguished record as a writer and film producer, concentrating on the protection of natural areas. These pieces are both funny and irreverent, and a few are, the author admits, less than tasteful; this is, nevertheless, good entertainment which does not obscure the author's underlying dedication to the cause of conservation. There is a certain amount of name-dropping and the reader is given an enlightening look at power-brokering and the inner workings of politics at both state and federal level. Whether or not you are interested in conservationism, for information and a good laugh this is the book to read.

BOOK REVIEW BY ELSIE TOPHAM

* * *

Bonar, Ann and MacCarthy, Daphne
HOW TO GROW AND USE HERBS
New York, Sterling Publishing Co.,Inc., 1992, 96 pages, 10 b&w photos, 20 color photos, 23 b&w illust., softcover, $8.95

This book on herbs is one of a series of books on "Practical Gardening" published by a British firm. Therein lies my only real criticism — Southern California gardeners must adjust to England's cooler, wetter weather. However most of us are accustomed to making this adjustment, so it is really not much of a problem.

Obviously, it is the publishers' intention to produce a series aimed at the beginner-average gardener. The text covers all you really need to know about growing and using herbs in one small easy-to-read paperback.

In addition to recipes, there are suggestions for making medicinal teas and cosmetic creams and lotions. A very useful book for someone who is starting to take an interest in herbs. A gardener who has been growing herbs for years will find nothing new here — but if you just like to read books about herbs you will like this one and can read it in one sitting.

BOOK REVIEW BY MARTHA ROSENBERG

* * *

Hessayon, Dr. D. G.
THE BIO FRIENDLY GARDENING GUIDE
Great Britain, Jarrold & Sons Ltd. Norwich, 1990, 64 pages, color most pages, 7¼" X 9¼ ", softcover, $5.95

"Bio Friendly", is the name of a British line of garden products designed to reduce intensive human impact on the natural order. The user-friendly garden is a charming concept. There are chapters on general gardening plus chapters on "People Friendly", "Pet Friendly", and "Environment Friendly" subjects. Every page is headlined and illustrated to invite reading or browsing. Concise, clearcut, and colorful, are the watchwords.

Southern Californians can use and enjoy this user-friendly booklet. It would make a lovely piggyback gift when giving a plant. Take care with the advice, for it is written for the English climate.

BOOK REVIEW BY ELLEN GILLIS

* * *

Greig, Denise
SCENTED GERANIUMS AND PELARGONIUMS
Australia, Kangaroo Press Ptg. Ltd., 1991, 72 pages, 22 pages color photos, 21 pages b&w photos/ drawings, 8½" X 5½", hardcover, $14.95

The name *Pelargonium* comes from the Greek name *pelargos*, a stork, the fruit resembles a stork's beak. *Geranium* gets its name from the Greek work *geranos*, a crane, the fruit resembles the bill of a crane.

This handbook explores the diversity of the genus from known scented-leaved, uniques, the Laras breed, to the delightful small-growing angel pelargonium plants. There is even a chapter describing seven species of pelargoniums found in Australia.

For those who want to do more than just admire, there is a brief chapter on geranium oil, instructions and recipes for making potpourri and culinary uses for the scented-leaved pelargoniums. If this handbook gives you a taste or a scent for further knowledge on the subject, a list for further reading is included within the final pages.

BOOK REVIEW BY JEAN E. JOHNS

* * *

Cash, Catherine
THE SLIPPER ORCHIDS
Timber Press, Inc., 1991, 228 pages, 225 color photos, 8½" X 11", hardccover, $45.00

The author is very dedicated and gives detailed information to anyone who is interested in pedigree and hybridization of slipper orchids (*Cypripedium, Paphiopedilum, Selenipedium* and *Phragmipedium*). Particular attention is given to *Paphiopedilum* and *Phragmipedium* which are usually cultivated in greenhouses. Detailed pedigree charts of certain hybrids are given. She is also concerned about danger of extinction of orchid species due to mankind.

For the amateur, the 225 color photos are concentrated in one section so that exotic shapes and available colors can be compared for decision toward one's favorite or desired plant. A section "Recommendation for Beginners", lists easily grown plants and other pertinent facts. As for soil mixes, she mentions only OFF mix and UC mix and there is a need to adjust to materials available locally.

This book will appeal to the very most dedicated gardeners or to a professional grower. It is not for a novice.

BOOK REVIEW BY ADA ENDO

* * *

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Computerization of Page Layouts by:

R. Barry Lewis
Computer System Analyst
619/460-2136

LEISURE HOMES OF THE RICH AND FAMOUS

BUS TRIP LAKE ARROWHEAD
Saturday, September 19

FOR SEPTEMBER HEAT a cool mountain getaway is just what the doctor orderes. Join us for a full day excursion to Lake Arrowhead in the mountains north of San Bernardino. SDFA offers a unique touring experience by special arrangement to five gracious, elegant and unusual homes in the community of Lake Arrowhead. We can't yet whisper just whose homes and gardens will be included in this mountain retreat from the Los Angeles basin, but you won't be disappointed. The summer crowds will be gone, but the scenery is there at the 'forest in the sky.'

The drive is pleasant and in the last 25 miles every curve provides breath-taking views. We'll share a pleasant lunch, cruise the lake, and tour grand impressive homes and gardens. As the sunset gilds the sky we start back, planning to be home by 8 pm.

Very early pick-ups at La Mesa and Balboa Park. A stop in Escondido for our North County residents. Sign up early. Members have requested weekend bus trips, and this one should be a sell out.

BUS TRIP - LAKE ARROWHEAD - SEPT.19
Lunch and Lake Cruise Included

☐ $57.00 Members (who pay dues directly to SDFA)
☐ $60.00 Non-members & members of affiliates
Checks payable to: San Diego Floral Association
Mail to: Casa del Prado, Room 105, Balboa Park
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PLEASE INCLUDE A STAMPED SELF-ADDRESSED ENVELOPE

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Pick-ups
☐ Red Lobster Park & Ride, Grossmont Center, La Mesa 7:45 am
☐ Balboa Park behind Organ Pavilion, 8:15 am
☐ Park & Ride at Hwy. 78 and Broadway, Escondido, 8:45 am

COMING IN SEPTEMBER - BOTANICAL CLASSES

CURRENTLY UNDERWAY is a comprehensive survey of horticulture classes being offered in San Diego County this fall. If your school would like to be included please send class schedule and fee information to *California Garden*, Casa del Prado, Room 105, San Diego, CA 92101. You can also call the SDFA office at 232-5762 or Pat Kastama at 222-2707.

Please note that San Diego's Mesa College fall classes begin on August 19th this year. They are offering a class in *Soil, Water and Fertilizer Science* — your next chance to take this class is two years away! Call Erica Specht in the Nursery and Landscape Technology Department of Mesa College at 627-2631 for more information.

Also, Quail Botanical Gardens is accepting applications for the Docent Training Class scheduled to meet for ten consecutive Wednesdays from 9:30 to 2:00 starting September 9. Applications may be picked up at the Gift Shop/Nursery, open Wednesday through Sunday 11:00-3:00 pm. All applications must be submitted by August 31. Docent training is given only once a year and is available to members only. Volunteer commitment is required after training. Call 436-3036 for more information.

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Under the sponsorship of the Park & Recreation Department, City of San Diego, California

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1992/1993
October 20, February 16
April 20, June 15
5:45 p.m.
Casa del Prado, Room 101
Balboa Park, San Diego

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IN AND ABOUT THIS ISSUE

WELCOME to our *Heat of the Summer* issue. This time we explore the concept of heat — from fire to spice with a little relief in a cooling oasis and a visit to Spain. Inspirations for our themes come from many sources, this one began with an article on landscaping to increase fire protection. Our publications committee discussed articles using the word *fire* which was a springboard for the editorial board to develop the concept of *heat*. It is particularly exciting for me to oversee such talented and energetic people working together for the benefit of all our readers. Each issue we are attracting more talented writers and artists willing to volunteer their abilities. Amateurs and professional horticulturists alike share their excitement, knowledge and expertise. We are glad that you are sharing in our growth and development and hope that you will let others know about *California Garden*!

GETTING TO KNOW SAN DIEGO FLORAL

Pat Kastama

NEARLY FIVE YEARS ago Lynn Beyerle learned about *California Garden* magazine and joined San Diego Floral Association when she attended a flower society show. Subsequently she responded to a request for computer knowledgeable people to help implement Floral's new membership computer.

Lynn was the answer to Floral's dreams — an experienced computer professional! Lynn had all the skills and, more important, the patience to help the organization into the computer age. From the beginning Lynn chose to spend Fridays in the Floral office. She soon finished installing membership data in the computer and is still keeping these files up-to-date. She not only produces labels for the magazine and newsletter but has helped many Floral committee chairmen with mailing lists and other aids produced on the computer.

When Elizabeth Glover resigned as editor of *California Garden* and many of the magazine jobs needed to be reassigned, she took over the advertising. Her gentle manner and strong professionalism have proven to be a perfect bridge between the advertisers and the magazine.

In 1989 Lynn was elected as a Director of San Diego Floral. She currently serves on the Governing Board as Second Vice President in charge of membership and is on the Publications Committee. She researches new computer hardware and software that would best serve our needs.

Everyone looks forward to Fridays in the Floral office and being greeted with Lynn's warm smile and willingness to help no matter what the problem.

PAT KASTAMA is past-president of San Diego Floral Association.

CALIFORNIA GARDEN (USPS 084-240)
San Diego Floral Association, Inc.
Casa del Prado, Balboa Park
San Diego, CA 92101-1619, USA

SECOND CLASS

Mission Hills Nursery.

ALWAYS SOMETHING NEW!

Much as our founder Kate Sessions did in her day, Mission Hills Nursery continues to explore the horticultural wonders of the world that can be grown right here in Southern California. This spring we are introducing three new flowering shrubs that we think you will really enjoy. Stop by and have a look!

Pink Elf™ Miniature French Hydrangea
A very compact, dwarf plant with a bushy, rounded habit growing only 18 inches tall and 24 inches wide. Produces broad heads of soft, rose-pink flowers.

Royal Cape™ Plumbago
An easy to grow mounding shrub that flowers all summer and is considered drought tolerant. Produces incredibly deep, clear blue flowers which bloom profusely in large, phlox-like clusters.

First Love™ Gardenia
An evergreen shrub that grows into an upright shrub four to five feet tall. Produces large, four inch wide, satiny textured blooms that are intensely fragrant. Blooms more profusely and over a longer period of time than Mystery Gardenia.

San Diego
1525 Ft. Stockton St.
San Diego, CA 92103
295-2808
Hours: 8 a.m. to 6 p.m., 7 days a week

MISSION HILLS NURSERY

Encinitas
442 North Rancho Santa Fe
Encinitas, CA 92024
753-7177
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